

CLAIMS

1. A portable hydro-generator, for the generation of power, including
a tower filled with a driving fluid;
5 a semi-sealed curved tubular housing with a drive portion and a return portion primed with a fluid, said drive portion and return portion having differing tubular internal diameters;
an inlet means to allow said fluid to enter said semi-sealed curved tubular housing;
10 a plurality of paddles to harness a kinetic energy of said fluid entering said semi-sealed curved tubular housing;
a linkage assembly to link said plurality of paddles;
a drive chamber;
a sprocket within said drive chamber to engage a portion of said paddles;
15 a power generator attached to said sprocket;
wherein said drive portion of semi-sealed tubular housing has a larger diameter than the return portion.
2. A portable hydro-generator, for the generation of power according to claim 1,
20 wherein said drive portion further includes a pre-pressure chamber and a pressure chamber.
3. A portable hydro-generator, for the generation of power according to any one of
the preceding claims wherein the inlet means allow said fluid to enter the semi-
25 sealed tubular housing at the drive portion.
4. A portable hydro-generator, for the generation of power according to any one of
the preceding claims wherein the paddles are hinged to allow a stretched position
and a closed position.
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5. A portable hydro-generator, for the generation of power according to any one of
the preceding claims wherein the paddles are in a stretched position at the drive
portion.

6. A portable hydro-generator, for the generation of power according to any one of the preceding claims wherein the paddles are in a closed position at the return portion.
- 5 7. A portable hydro-generator, for the generation of power according to any one of the preceding claims wherein the semi-sealed curved tubular housing further includes a wedge at the drop-off point.
- 10 8. A portable hydro-generator, for the generation of power according to any one of the preceding claims wherein the paddles interact with the wedge to rotate from a stretched position to a closed position.
- 15 9. A portable hydro-generator, for the generation of power according to any one of the preceding claims wherein the semi-sealed tubular housing further includes guide walls to maintain the position of the paddles.
10. A portable hydro-generator, for the generation of power according to claim 9 wherein the guide walls maintain the paddles in a closed position at the return portion.
- 20 11. A portable hydro-generator, for the generation of power according to any one of the preceding claims wherein the tower is positioned above said drive portion to effect a pressure head on the drive portion.
- 25 12. A portable hydro-generator, for the generation of power according to any one of the preceding claims wherein the portable hydro-generator further includes a lower receptacle tank.
- 30 13. A portable hydro-generator, for the generation of power according to claim 12 wherein the return portion further includes a drop off point.
- 35 14. A portable hydro-generator, for the generation of power according to any one of claims 12 or 13 wherein the semi-sealed tubular enclosure is open to environmental pressures just after the drop off point and before the lower receptacle tank.

15. A portable hydro-generator, for the generation of power according to any one of the preceding claims wherein the paddles rotatably interacts with the sprocket wheel.
- 5 16. A portable hydro-generator, for the generation of power according to any one of the preceding claims wherein the lower receptacle tank further includes an overflow tank.
- 10 17. A portable hydro-generator, for the generation of power according to any one of claims 1 or 16 wherein the overflow tank further includes a pump, to pump overflow water back to the tower.
- 15 18. A portable hydro-generator, for the generation of power according to any one of the preceding claims wherein the drive chamber further includes an abutment to allow paddles in a closed position to rotate to a stretched position.
- 20 19. A portable hydro-generator, for the generation of power according to claim 18 wherein the abutment is positioned just after a top dead center of the sprocket wheel.
- 25 20. A portable hydro-generator, for the generation of power according to any one of the preceding claims wherein the paddles are positioned such that the drive portion is sealed.
- 30 21. A portable hydro-generator, for the generation of power according to any one of the preceding claims wherein the inlet means is a system of conduits.
- 35 22. A paddle, adaptable to be used in any one of the preceding claims, including a top surface;
 a bottom surface;
 seals to prevent water leakage through the paddles;
 a linkage bar to allow an attachment of said paddle to a subsequent paddle;
 wherein the top surface of the paddle further includes studs to increase the effective surface area of the top surface of the paddle.

23. A paddle according to claim 22, wherein the paddles is made from a water resistant material.